

Misapplication of the Aboriginal name "Gungurru" to *Eucalyptus caesia* Benth. and notes on the species' distribution

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Abstract

Examination of voucher specimens of "Gungurru" collected by R. Helms in 1891 near the Fraser Range established that this Aboriginal food plant is *Eucalyptus woodwardii*, not *E. caesia* as claimed by Mueller and Tate (1896) and subsequent authors. The known geographical distribution of *Eucalyptus caesia* in south-western Australia is outlined and erroneous distribution records from the Murchison River, Fraser Range and the central wheatbelt are noted.

Introduction

This paper addresses a number of misconceptions regarding the vernacular name and geographical range of *Eucalyptus caesia* Benth. The species occurs in small, widely scattered populations on granite rocks in the Western Australian wheatbelt (Hopper *et al.* 1982). Although quite rare in the wild, it is a well known and widely cultivated ornamental eucalypt.

In 1978-81, one of us (S. D. H.) conducted a systematic field survey to assess the range, abundance and conservation status of *E. caesia*. Figure 1 shows the known range of the species based on this survey, in which 15 major populations were located. However, the survey failed to locate the reported occurrences of the species from the Murchison River (Maiden 1917) and the Fraser Range (Mueller and Tate 1896; Chippendale 1973; Gardner 1954).

An examination of the relevant literature and herbarium specimens confirmed that the Murchison River and the Fraser Range records were inaccurate. They also revealed that *E. caesia* was not the Aboriginal food plant known as Gungurru (cf. Gardner 1954).

The type collection

The first known collection and type specimen of *E. caesia* was Supplement No. 36 of James Drummond's 5th Collection (Bentham 1867). This collection was made during the spring or early summer of 1847 in the "Mullean", a region of large granite rocks including Mt. Caroline and Mt. Stirling in the central wheatbelt of Western Australia (Erickson 1969). Maiden (1917) mistakenly claimed that the type specimen had come from the Murchison, perhaps confusing it with Drummond's final (6th) Collection from the Murchison River to Dandaragan.

Bentham (1867) provided the original description of the species, giving it a name derived from the Latin *caesius* which means bluish-grey (Sharr 1978). This describes the powdery grey appearance of the branchlets, leaves, buds and fruits. Unfortunately,

the type specimen lacked flowers and this must have contributed to some early confusion (see below) over the identity of *E. caesia*.

The collection of "Gungurru"

In 1891, Richard Helms was the naturalist with the Elder Scientific Expedition exploring the arid regions between the Everard Range in South Australia and the Fraser Range in Western Australia. While in the Fraser Range area, Helms met an Aboriginal tribe from the Hampton Plains. These Aborigines pounded the roots of a *Eucalyptus* species they called "Gungurru" to produce a food powder. Helms' specimen of this species (Fig. 2) collected at Camp 63 of the expedition, was identified as *Eucalyptus caesia* (Helms 1896, p. 325; Mueller and Tate 1896, p. 358). The location of Camp 63 was about 80 km south-west of Queen Victoria Spring (see Fig. 1).

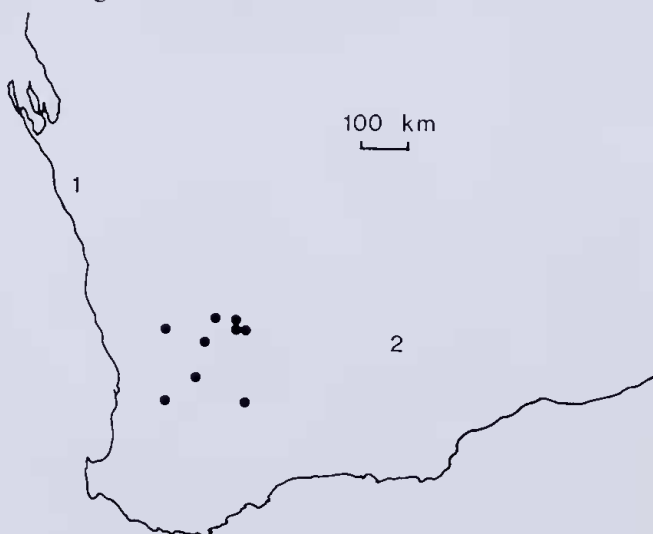


Figure 1.—Distribution of *Eucalyptus caesia* in southern Western Australia and the locations of two inaccurate records. ●—Confirmed localities. 1.—Murchison (Maiden 1917). 2.—Camp 63 (Mueller and Tate 1896).



Figure 2.—Helms' herbarium specimen of Gungurru housed at the State Herbarium Adelaide. The determinavit slip of M.I.H. Brooker's dated 9 December 1976 reads "this is insufficient material but probably is close to *E. woodwardii* and *E. georgei* Brooker sp. nov".

Mueller and Tate (1896) described the Gungurru specimen, particularly its flowers, in some detail. Maiden (1917) suggested that this description might apply to *E. woodwardii* Maiden rather than *E. caesia* but did not examine Helms' specimens.

There are three *Eucalyptus* specimens from Camp 63 housed at the State Herbarium Adelaide, National Herbarium Melbourne and National Herbarium Sydney respectively. Both the Melbourne specimen (G. Chippendale pers. comm. 1980) and the Sydney specimen (D. Blaxell pers. comm. 1980) have been identified as *E. woodwardii*. The specimen housed at Adelaide (Fig. 2) lacked flowers and fruits so that it could not be identified with certainty. M. I. H. Brooker (pers. comm. 1980) and one of us (S. D. H.) considered that it was most likely to be either *E. woodwardii* or *E. georgei* Brooker et Blaxell.

Aside from these identifications there are two independent lines of evidence that the Lemon-flowered Gum, *E. woodwardii*, is Gungurru rather than the other two eucalypts mentioned above. First, *E. woodwardii* is known to occur in large stands in the Camp 63 area (Chippendale 1973). The verified geographical range of *E. caesia* (Fig. 1) is well removed from there and it seems unlikely in any case that the species' small populations of slender mallees could have provided a significant food source for the Aborigines. *E. georgei*'s known range is also some distance to the west from Camp 63 (Brooker and Blaxell 1978).

Secondly, *E. woodwardii* matches Mueller and Tate's (1896) description of Gungurru in all respects. However, *E. georgei* differs in several characters, for example in its smaller flower buds (11-13 mm long rather than 17-25 mm long) and its lack of a distinct beak on the operculum. *E. caesia* also lacks the distinctly beaked operculum that characterises Gungurru and differs in having kidney-shaped anthers rather than the cuneate-ellipsoid anthers of Gungurru, Gardner (1954) adopted Helms' aboriginal name for *E. caesia* but misspelt it "Gungunnu". Both versions of the common name are well known although the original spelling is favoured in more recent publications (e.g. Chippendale 1973; Gardner 1979).

Other distribution records

G. M. Chippendale (pers. comm. 1980) and M. I. H. Brooker (pers. comm. 1981) have confirmed that a specimen at the British Museum (collected by H. F. Broadbent, No. 1371, 11/9/1953) labelled "Fraser Range" is *E. caesia*. However, the entire Fraser Range was surveyed at low altitude in a light aircraft by one of us (S. D. H.) in company with A. S. George on 13 October 1979. No *E. caesia* plants were seen, nor have any specimens been collected from this locality in recent years. It is possible that Broadbent's specimen was actually collected from Fraser Rocks, located 40 km north-north-east of Beacon and 80 km north-west of known *E. caesia* localities at Yanneymooring Hill and Walyahmoning Rock. The Fraser Rocks locality deserves investigation.

E. caesia has most frequently been reported from Mt. Caroline and Mt. Stirling, the first of which still harbours relatively large populations of the species. Collection details on specimens housed in the Western Australian Herbarium (Perth) indicate that they were all collected within the species' known range

illustrated in Figure 1. However, the following recorded localities have not been confirmed.

1. Uberin Hill (Gardner 1954).
2. Warren Double Cunyan (Gardner 1954).
3. 25 miles north of Mukinbudin (A. N. Maddock 20/5/1960: PERTH).
4. Karlgarin (J. P. Stafford 3/6/1970: PERTH).

The first two localities are quite specific and do not have *E. caesia* populations now. Warren Double Cunyan has a small population of *E. crucis* Maiden, which could have been mistaken for *E. caesia*. Uberin Hill may have been mistaken for a nearby granite rock which does have an *E. caesia* population. The other two localities cannot be pinpointed but a fairly thorough search failed to locate *E. caesia* in those areas. It is possible that any of the localities listed above may have contained populations which are now extinct.

Conclusion

Gungurru is clearly not *Eucalyptus caesia* and there is little doubt that its true identity is *E. woodwardii*. Because "Gungurru" is inappropriate as the vernacular name for *E. caesia*, we favour "Caesia", an alternative vernacular name that is already fairly widely used.

This investigation illustrates the importance of keeping good herbarium specimens and accurate descriptions to substantiate new records. Had Helms not collected voucher plant specimens and Mueller and Tate not described these specimens in some detail, the misapplication of the name Gungurru to *E. caesia* would have gone unnoticed and the erroneous location of Fraser Range for the species would have become perpetually entrenched in the literature.

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